

**DEPARTMENT OF NATURAL RESOURCES
AND CONSERVATION**

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HELENA, MONTANA 59620-1601**DECISION MEMO
ACTIONS OF A SPECIAL NATURE****Moulton Water Treatment Plant Filter Replacement Alternative Analysis****October 29, 2021****City and County of Butte-Silver Bow****PER – Administrative Action****46.037713, -112.534021****Silver Bow County****PURPOSE AND NEED**

The Moulton WTP was brought online in March of 1995 and has a rated capacity of 2.5 MGD. The treatment process consists of prescreening to remove large debris followed by flocculation, sedimentation, and gravity mixed media filtration. The gravity mixed media filter at the Moulton WTP is housed in 21.6 feet tall by 26.5 feet in diameter cylindrical steel tank divided into four pie-shaped filter cells that each contain a mixed media water filter.

The proposed Filter Replacement Alternative Analysis project was identified during a recent update to the BSB Water Master Plan (2021). The Moulton WTP's single filtration tank is showing signs of corrosion resulting in water leakage. It was determined that the mixed media filter has exceeded its useful life and raw water breakthrough is imminent if the problem is not addressed. The preliminary filter replacement recommendation indicated that the filter media has deteriorated beyond rehabilitation and should be replaced with membrane filtration. Design and installation of a new state-of-the-art membrane filtration system will eliminate water waste associated with tank leakage and routine operation and maintenance of the WTP. This new system will also help maximize capacity of the city's most cost-effective water source serving the Butte Hill.

The drinking water industry has become increasingly interested in membrane filtration to replace granular media filtration. The advantages of membrane filtration are increasingly considered for both retrofit of existing water treatment plants and outfitting new ones.

The PER update is scheduled for completion during Spring 2022.

Explanation of the decision(s) that must be made regarding the proposed action:

DNRC approved the grant to provide funding for the City and County of Butte-Silver Bow.

DNRC is not required to prepare an Environmental Assessment (EA) or an Environmental Impact Statement (EIS) for actions that qualify for a CATEGORICAL EXCLUSION or justified by a PROGRAMMATIC REVIEW; or are ACTIONS OF A SPECIAL NATURE (ARM 36.2.523(5)). These actions are subject to review for EXTRAORDINARY CIRCUMSTANCES that would require an EA or an EIS.

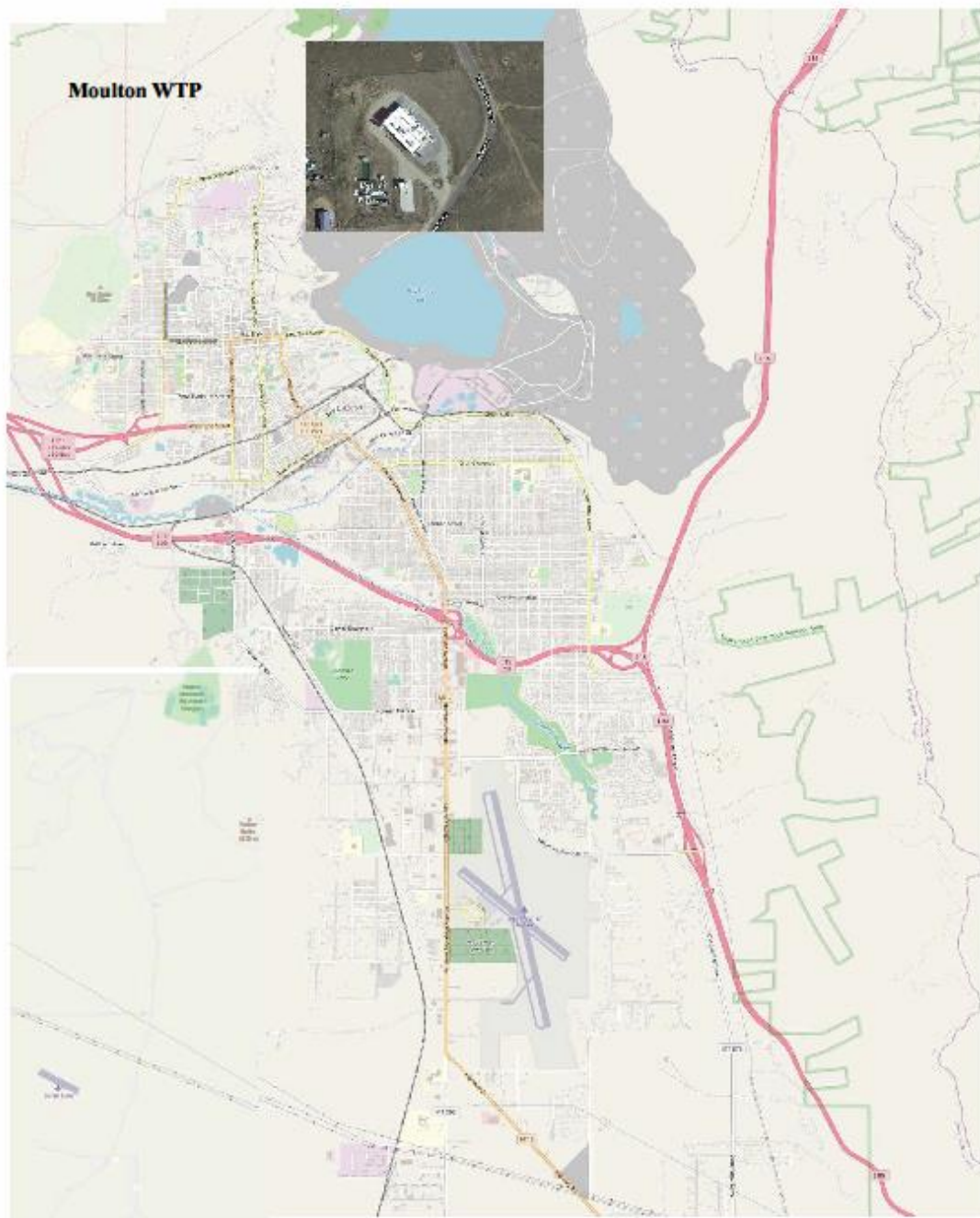
ACTIONS OF SPECIAL NATURE (ARM 36.2.523)

- ✓ Administrative actions: routine, clerical or similar functions of a department, including but not limited to administrative procurement, contracts for consulting services, and personnel actions.
- ☐ Minor repairs, operations, or maintenance of existing equipment or facilities.
- ☐ Investigation and enforcement: data collection, inspection of facilities or enforcement of environmental standards.
- ☐ Ministerial actions: actions in which the agency exercises no discretion, but rather acts upon a given state of facts in a prescribed manner.
- ☐ Actions that are primarily social or economic in nature and that do not otherwise affect the human environment.

The project listed above meets the definition of Actions of a Special Nature, Categorical Exclusion or Programmatic Review including specified conditions and Extraordinary Circumstances.

Prepared By:	Name: Sonja Hoeglund Email: shoeglund@mt.gov	Date: 10/29/2021
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Approved By:	Name: Mark Bostrom Title: CARD Division Administrator
Signature:	Date: 11/15/2021 9:49:38 AM MST



Mercator Projection
WGS84
USNG 12TUR-12TUS
 CALTOPO

1 2 3 4 5 6km
1 2 3mi
Scale 1:57984 1 inch = 4832 feet



Moulton Water Treatment Plant Project Location